Fall 2015

BIOS 1081

Jack Horne
University of New Orleans

SYLLABUS

BIOS 1081 – Form and Function Laboratory – Fall 2015

Section: BIOS 1081-006 **Lab Period:** Thursday 11:00 – 1:45 **Room:** SC 2035

Instructor: Jack Horne **Email:** jhhorne@uno.edu

Office Hours: Monday 9:30-11:30; Wednesday 1:30-3:30; Thursday 1:30-3:30

Teaching Assistant: Bradley Jordan **Email:** bjordan1@my.uno.edu

Course Goals and Objectives:
The overall goal of the laboratory for ***BIOS 1081 Form and Function*** is to understand how knowledge and understanding of biological systems is acquired through experiments and the iterative cycle of the scientific method. Although the general topics being investigated parallel those of the lecture section of Form and Function (BIOS 1083), the laboratory section allows you to understand ***how*** we have gained our knowledge of biological systems. Thus, the topics are not necessarily first covered in lecture, and in many instances understanding the concept first through laboratory investigation may be better for long-term learning. The general goals and objectives of the laboratory course are listed below, also indentifying for each objective how your instructor will assess your progress.

Learning Goals	Learning Objectives	Assessment
Understand the scientific rationale and the basic experimental methods of a series of experiments carried out through the semester.	Students will be able to determine the scientific rational and the basic methods of each experiment through their own reading of the experimental protocol and, when necessary, through online searches for additional information.	1) homework problems 2) quizzes 3) in-class discussions and assignments
Understand the results of experiments, what statistical methods are required for analysis, and what further controls might be required to address the experimental question.	Students will be able to interpret their results in light of the experimental question being addressed, carry out whatever analysis or data processing is required, and assess whether further experimental controls might be required.	1) quizzes 2) in-class discussions and assignments 3) lab exams

Understand the facts, terms, and concepts that underlie the basic principles of biology from macromolecules to cells and organisms.	Students will be able to recall the facts, terms, and concepts of the basic principles of biology, and use this knowledge to communicate with their peers and other scientists with regard to key questions in biology.	1) homework 2) quizzes 3) in-class discussions and assignments 4) lab exams
Understand how concepts learned through lecture and other sources apply to the experimental questions being addressed in lab.	Students will be able to derive conclusions about their results acquired in lab in light of the biological principles discussed in lecture. Students will be able to identify how the results fit into the general scheme of known biological principles and also identify how result may further biological knowledge.	1) quizzes 2) in-class discussions and assignments 3) lab exams

Study Recommendations:

- ✓ Always come to lab prepared. Understand what is the question being addressed in that day's lab, what is the scientific rationale for the experiment to be carried out, and have a general understanding of the experimental methods that will be used.
- ✓ Utilize the homework as a study guide of major concepts and key information. Homework covers what the instructor considers to be important ideas and often reflects quiz and exam questions.
- ✓ Draw and label all diagrams, dissections, and slides presented in the activity. Photos are okay, but drawing promotes active learning and greater retention.
- ✓ Answer any questions at the end of your exercise within 48 hours of completing the lab. The information is fresh in your mind and reviewing is easier later.
- ✓ Visit instructors during their office hours to ask questions and go over complicated concepts. If time is an issue, email specific questions or arrive a few minutes early to class.
- ✓ Use any supplemental information provided by your instructor.

Schedule – BIOS 1081 Form and Function Laboratory – Fall 2015

Week of:

August 24 Introduction, Safety Issues, Graphing, Diagnostic Activity

August 31 Exercise 1: What is the Process of Science?
- Homework 1 due

September 7 Exercise 2: Who Took Sam's iPhone?/Organic Molecules
- Homework 2 due
- Quiz 1 on The Process of Science

September 14 Exercise 3: Microscope and Cells
- Homework 3 due
- Quiz 2 on Organic Molecules

September 21 Exercise 4: Osmosis
- Homework 4 due
- Quiz 3 on Microscope and Cells

September 28 Exercise 5: Is it alive?
- Homework 5 due
- Quiz 4 on Osmosis

October 5 Midterm Lab Exam I - Exercises 1-5

OCTOBER 14 IS THE LAST DAY TO DROP A CLASS AND RECEIVE A 'W'.

October 15 Mid-semester Break—no Labs this week

October 19 Exercise 6: DNA and Mitosis
- Homework 6 due

October 26 Exercise 7: Meiosis and Genetics
- Homework 7 due
- Quiz 5 on DNA and Mitosis

November 2 Exercise 8: Dilutions, Enzymes and Spectrophotometry
- Homework 8 due
- Quiz 6 on Meiosis and Genetics

November 9 Exercise 9: Yeast Complementation
- Homework 9 due
- Quiz 7 on Dilutions, Enzymes, Spetrophotometry

November 16 Exercise 10: Vertebrate Anatomy I
- Homework 10 due
- Quiz 8 on Yeast Complementation

November 23 **Thanksgiving Break---No Labs**

November 30 **Final Lab Exam II - Exercises 6-10**

Grading Breakdown: Participation 10%
Quizzes 25%
Homework 25%
Exams 40% (midterm 20% ; final 20%)

Scale: 100 – 90 = A, 89 – 80 = B, 79 – 70 = C, 69 – 60 = D, & 59 – 0 = F

There is NO curve. The lowest quiz and homework grade will be dropped. If you miss a class, this will be the lowest quiz and homework grade that is dropped.

Course Guidelines:

1. Students must receive a 100% on the Safety Quiz before entering lab for the second class period, and must comply with all safety rules at all times.

2. Under **NO** circumstances are students allowed to informally change lab sections. A student requesting a change in section **must change officially** by dropping the original section and enrolling in another section.

3. **Lab attendance is mandatory**. Students who have a documented valid excuse for missing a lab may request permission to make up the lab in another section during the week that particular lab is being performed. The student must have a permission slip furnished by their lab instructor to make up a lab, and will take the quiz given in that lab section. **If you miss more than 3 labs, regardless of the excuse, you will receive an F grade for the lab.**

4. **Students must access Moodle (see #13) to print out and bring a copy of the lab exercises to class. Students without a copy will be charged $5 for a copy from the teacher.** Students are expected to read the laboratory activity before the start of class. Failure to become familiar with material may result in not completing the laboratory activities on time.

5. **Quizzes are given in the beginning of each class period.** Students who are late for class will not be allowed extra time and will only be granted the remaining time to complete the quiz. **Students who leave lab more than 30 minutes before the end of class period will receive a quiz grade of zero.**

6. **Homework assignments will be posted to Moodle to be printed out and completed before lab.** The homework will cover the upcoming lab and should be viewed as a guide to major concepts that will be discussed further in class. Consult the lab exercise and outside resources for answers if needed. **Homework will be collected at the beginning of class.**

7. **There are two examinations**, one at midterm and the other at the end of the semester. The midterm covers the first five lab exercises, and the final covers labs 6-10. These

exams will include written questions along with a practical section, requiring hands on mastery of concepts and skills.

If a student is absent from an exam, s/he **MUST contact** the instructor no later than **24 hours after the scheduled exam time** via email. Failure to communicate with the instructor within this time period **will result in a grade of zero** for that exam. A **valid written excuse** must be provided before a makeup exam will be permitted. A doctor's note must state 1) the suspected nature of the illness and 2) that the severity of the illness could interfere with the ability to take an exam.

8. The grade assigned for BIOS 1081 lab is separate from the BIOS 1083 lecture grade. The percentage breakdown and grading scale for lab are described earlier in this syllabus. **There is no curve and no opportunity for extra credit.** The lowest quiz grade will be dropped.

   The University Academic Dishonesty Policy (http://www.uno.edu/studentaffairs/accountability.aspx) will be enforced. Academic dishonesty **will not be tolerated**. Dishonesty includes, but is not limited to the following: cheating; plagiarism; tampering with records, examinations, or quizzes; giving a false identity; damaging university materials; or being an accessory to acts of academic dishonesty.

9. Students must notify their instructor promptly concerning any problem with the operation of the microscope. Students must return the microscope in the proper condition (proper objective in place, slide removed, etc.) at the end of each class session.

10. Students are responsible for cleaning up after themselves. This includes their laboratory table as well as any other areas of the room that were used.

11. Official closure of the university (e.g. for bad weather) will be posted on the UNO web page at www.uno.edu. **Do not assume that labs, quizzes, or exams are cancelled without official notification** via an email from the university or your instructor, or by an emergency notification text message (which you can register for at http://uno2.uno.edu/ucc/E2Campus/e2Campus.htm). You may also check with the biology department office at (504) 280-6308. It is your responsibility to find out how labs will be rescheduled.

12. Students must regularly access to the internet in order to check their UNO email account for messages from BIOS 1081 staff, and to utilize the Moodle e-learning program (https://uno.mrooms3.net) for downloading lab exercises, etc. Students who do not have a personal computer or home internet account can find a list of UNO student computer labs at http://ucc.uno.edu/UCCHome/UCCStudentLabs/LabSpecifications.aspx. If you do not know your logon information, check with the UCC Help Desk in room 101 of the Computer Center building or visit http://ucc.uno.edu/UCCHome/UCCHelpDesk.aspx. Students are responsible for all email communications from UNO staff to their UNO email account. Failure to check your UNO email is not an acceptable excuse for missing a communication.

THE UNIVERSITY of NEW ORLEANS

Syllabus Attachment

Fall 2015

Important Dates*

Last day to adjust schedule w/out fee	08/18/2015
Semester Classes Begin	08/19/2015
Last day to adjust schedule w/fee, or withdraw with 100% refund	08/25/2015
Last day to apply for December commencement	09/25/2015
Final day to drop a course or resign	10/14/2015
Mid-semester examinations	10/05-10/09/2015
Final examinations	12/07-12/11/2015
Commencement	12/18/2015

**Note: check Registrar's website for Saturday and A/B sessions, and for items not listed here: http://www.registrar.uno.edu*

Fall Semester Holidays

Labor Day	09/07/2015
Mid-semester break	10/15-10/16/2015
Thanksgiving	11/26-11/27/2015

Withdrawal Policy – Undergraduate only

Students are responsible for initiating action to resign from the University (withdraw from all courses) or from a course on or before dates indicated in the current Important dates calendar. Students who fail to resign by the published final date for such action will be retained on the class rolls even though they may be absent for the remainder of the semester and be graded as if they were in attendance. Failure to attend classes does not constitute a resignation. Check the dates on the Registrar's website, http://www.registrar.uno.edu. Please consult The Bulletin for charges associated with dropping and adding courses.

Incomplete Policy – Undergraduate only

The grade of I means *incomplete* and is given for work of passing quality but which, because of circumstances beyond the student's control, is not complete. The issuance of the grade of I is at the discretion of the faculty member teaching the course. For all graduate and undergraduate students, a grade of I becomes a grade of F if it is not converted before the deadline for adding courses for credit (as printed in the Important Dates Calendar) of the next regular semester including summer semester.

Repeat Policy

When a student is permitted to repeat a course for credit, the last grade earned shall be the one which determines course acceptability for degree credit. A student who has earned a C or better in a course may not repeat that course unless, (1) the catalog description indicates that the course may be repeated for credit, or (2) the student's Dean gives prior approval for documented extenuating circumstances.

Graduate Policies

Graduate policies often vary from undergraduate policies. To view the applicable policies for graduate students, see the Graduate Student Handbook: http://www.uno.edu/grad/documents/GraduateStudentHandbook2014.pdf

Academic Dishonesty Policy

http://www.uno.edu/student-affairs-enrollment-management/documents/academic-dishonesty-policy-rev2014.pdf

Safety Awareness Facts and Education

Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://www.uno.edu/student-affairs-enrollment-management/

UNO Counseling Services and UNO Cares

UNO offers care and support for students in any type of distress. Counseling Services assist students in addressing mental health concerns through assessment, short-term counseling, and career testing and counseling. Find out more at http://www.uno.edu/counseling-services/. First-year students often have unique concerns, and UNO Cares is designed to address those students succeed. Contact UNO Cares through http://www.uno.edu/fye/uno-cares.aspx.

Emergency Procedures

Sign up for emergency notifications via text and/or email at E2Campus Notification: http://www.uno.edu/ehso/emergency-communications/index.aspx. All emergency and safety procedures are explained at the Emergency Health and Safety Office: http://www.uno.edu/ehso/.

Diversity at UNO

As the most diverse public university in the state, UNO maintains a Diversity Affairs division to support the university's efforts towards creating an environment of healthy respect, tolerance, and appreciation for the people from all walks of life, and the expression of intellectual point of view and personal lifestyle. The Office of Diversity Affairs promotes these values through a wide range of programming and activities. http://diversity.uno.edu/index.cfm

Learning and Support Services

Help is within reach in the form of learning support services, including tutoring in writing and math and other supplemental instruction. Visit the Learning Resource Center in LA 334, or learn more at http://www.uno.edu/lrc/.

Affirmative Action and Equal Opportunity

UNO is an equal opportunity employer. The Human Resource Management department has more information on UNO's compliance with federal and state regulations regarding EEOC in its Policies and Resources website: http://www.uno.edu/human-resource-management/policies.aspx